

Upper/Middle Region Baseline Evacuation Scenarios

Scenario one (limited surge event)

Scenario one set: Coastal Zones, at 3 participation rates (40%, 70%, and 100%), with 10% shadow evacuation for Zone A, and run for 12-hour & 2-day (70/30) response times. (6 runs)

Coastal Zone	40, 70, & 100%
Zone A	10%
Zone B	
Zone C	

Scenario two (moderate surge event)

Scenario two set: Coastal & A Zones, at 3 participation rates (40%, 70%, and 100%) with shadow evacuation for Zone A & B at 20% & 10% respectively and run for 12-hour and 2-days (70/30) response times. (6 runs)

Coastal Zone	40, 70, & 100%
Zone A	20%
Zone B	
Zone C	10%

Scenario three (significant surge event)

Scenario three set: Coastal, A, & B Zones at 3 participation rates (40%, 70%, & 100%) with shadow evacuation for Zone C at 30% & 20% for out of zones and run for 12-hour and 2-days (70/30) response times. (6 runs)

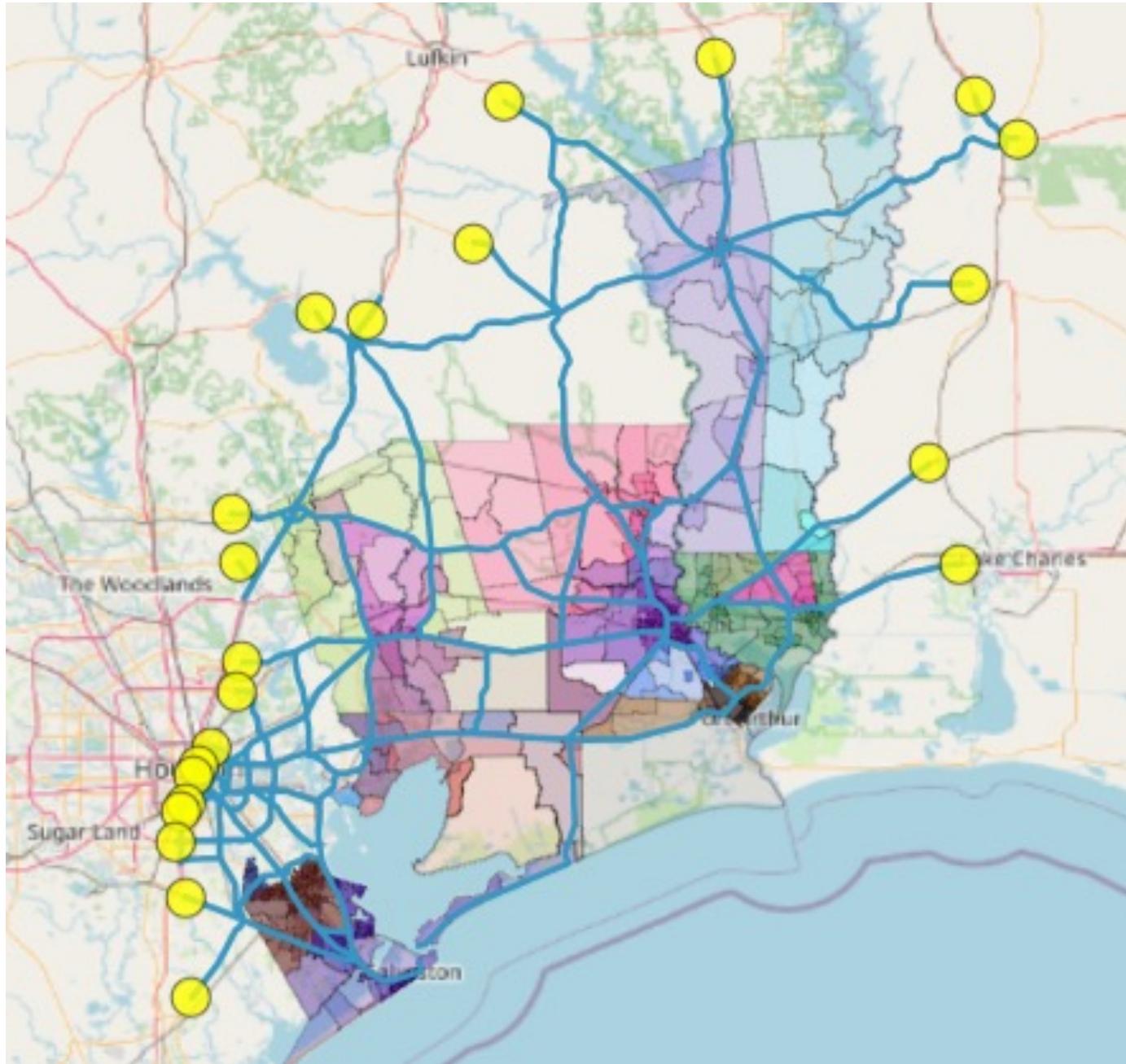
Coastal Zone	40, 70, & 100%
Zone A	30%
Zone B	
Zone C	20% for out of zone areas

Scenario four (major surge event)

Scenario four set: Coastal, A, B, & C Zones, at 2 participation rates (70% & 100%) with 30% shadow evacuation rate for out of Zone areas and run for 12-hour and 2-days (70/30) response times. (4 runs)

Coastal Zone	70% & 100%
Zone A	
Zone B	
Zone C	30% for out of zone areas

1. Each scenario set will be run for two response times
 - 12-hour response time
 - 2-day response time (70% day 1 & 30% day 2)
2. All Scenarios will assume
 - Seasonal population included at full occupancy for each zone
 - Background traffic and traffic incidents not adjusted
3. A total of 22 baseline scenarios for the Upper/middle Region



UPPER/MIDDLE

- 22 EndPoint Locations
- Working through issues on zone connectivity

TX 35 north of Danbury	At Main Street/Spur 28
SH 6 north of Manvel	South of SH 288
Sam Houston Tollway west of SH 288	East of Kirby
SH 288 north of Reed Road	South of W Bellfort
IH-610 South Loop west of Scott	East of SH 288
IH-45 Gulf Freeway south of US 59 Southwest	South of Emancipation
IH-10 East Freeway west of US 59 Eastex	At Jensen Drive
IH-610 North Loop west of Homestead	East of Kelley Street
Sam Houston Parkway west of Lockwood	East of Wilson Road
FM 1960 east of IH-69/US 59 Eastex	East of Wilson/Townsen
TX 242 west of IH-69/US 59 Eatex	East of FM 1485
TX 105 west of Cleveland	West of South Duck Creek Rd
US 190 west of Livingston	At FM 3126
IH-69/US 59 north of Livingston	North of North Houston Street
US 287 west of Chester	North of FM 1745
US 69 south of Hugtinton	North of FM 844
US 96 south of Bronson	North of FM 2866
US 171 north of Leesville LA	South of LA 111
LA 8/LA 28 [Alexandria Hwy] east of Leesville LA	East of Bellview Road
US 190 west of DeRidder LA	At LA 3266
LA 12 west of DeQuincy	East of East Airport Rd
IH-10 in Sulpher LA	West of Ruth Street

Southeast Texas Study Evacuation Zones

ZoneCode

- STPNP Environmental Protection Zone
- Coastal Zone
- Zone A
- Zone B
- Zone C

Southwest Louisiana Evacuation Zones

- Out of Zone
- Phase I West
- Phase II Central

Evacuation Routes

Evacuation Routes (2024)

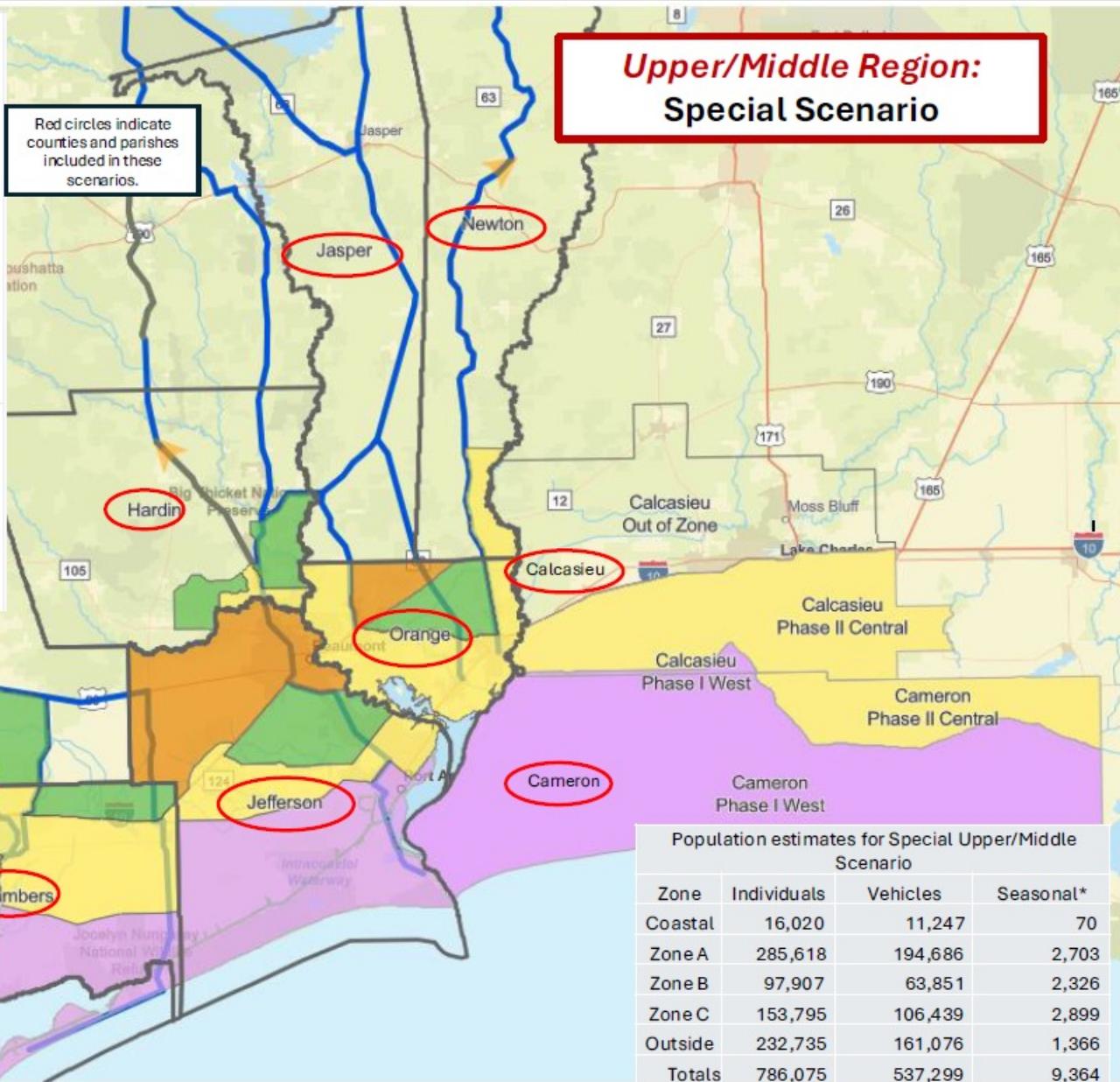
ROUTE_TYPE

- Major Evacuation Routes
- Potential Contrafow
- Potential EvacLanes

- Potential EvacLane & Potential Contrafow

ROUTE_TYPE

- Potential Contrafow
- Potential EvacLanes



1. Significant surge event

Significant Surge sett: Coastal, A, & B Zones (40%, 70%, & 100%); shadow evac. for Zone C at 30% & 20% for outside zones; & 12-hour and 2-days (70/30) response times. (6-runs)

25% for assumed participation rates for LA zones, moving west into Texas

- Coastal Zone
- Zone A
- Zone B
- Zone C

40, 70, & 100%
30%
20% for out of zone areas

2. Major surge event

Major Surge Scenario: Coastal, A, B, & C Zones at 70% & 100% with 30% shadow evacuation rate outside zones; 12-hour and 2-days (70/30) response times. (4-runs)

25% of assumed participation rates LA zones, all moving west into Texas

- Coastal Zone
- Zone A
- Zone B
- Zone C

70% & 100%
30% for out of zone areas

1. Each scenario set will be run for two response times

- 12-hour response time
- 2-day response time (70% day 1 & 30% day 2)

2. All Scenarios will assume

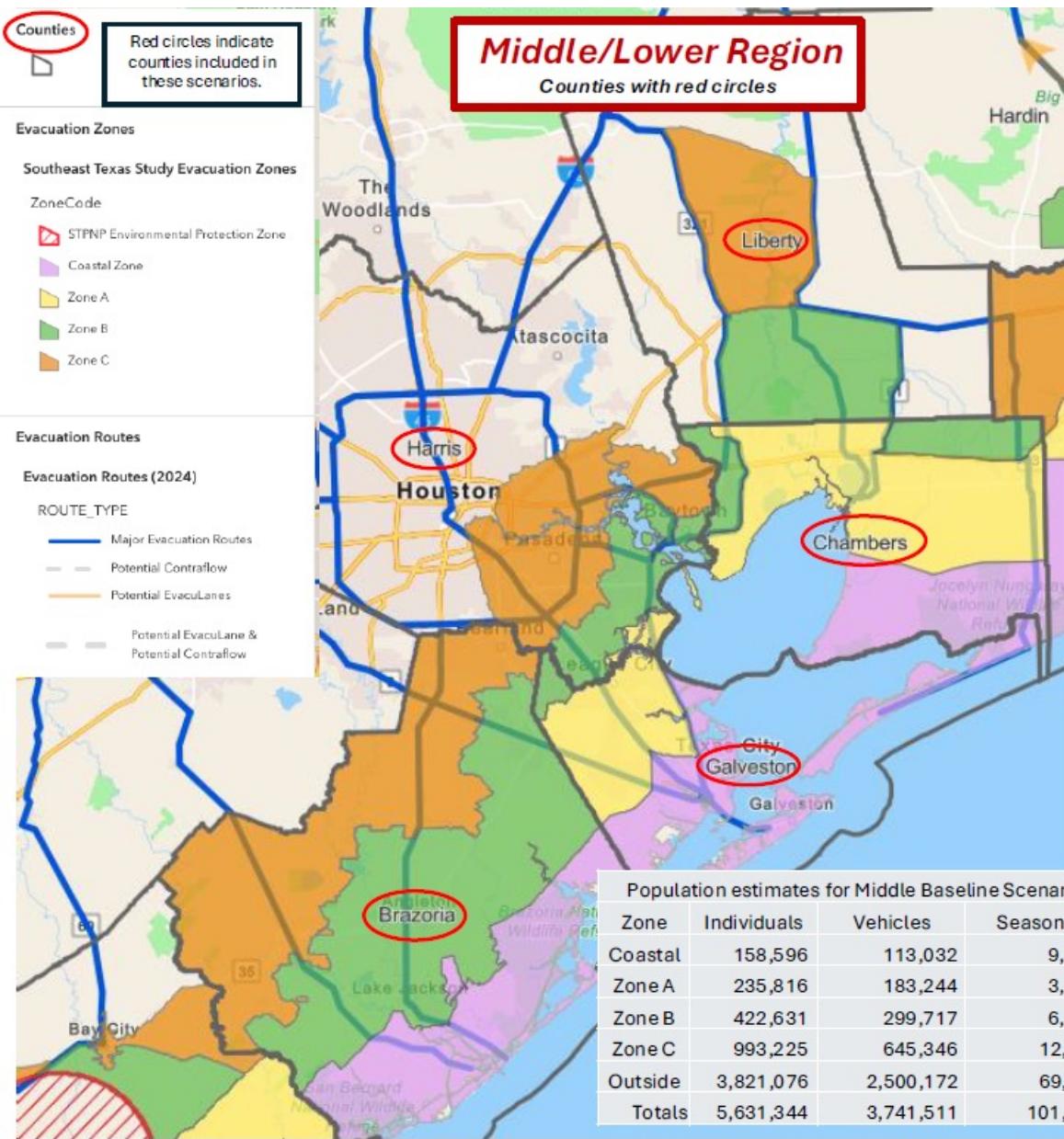
- Seasonal population included at full occupancy for each zone
- Background traffic and traffic incidents not adjusted

3. Evacuation from Louisiana will be constrained to 25% of assumed participation rates moving west from the two zones and shadow.

4. Total of 10 runs

UPPER/MIDDLE SPECIAL

- TBD EndPoint Locations
- Need to get updated LA shape files
 - Initial version not complete



Middle/Lower Region Baseline Evacuation Scenarios

Scenario one (limited surge event)

Scenario one set: Coastal Zones, at 3 participation rates (40%, 70%, and 100%), with 10% shadow evacuation for Zone A, and run for 12-hour & 2-day (70/30) response times. (6-runs)

Coastal Zone **40, 70, & 100%**
 Zone A **10%**
 Zone B
 Zone C

Scenario two (moderate surge event)

Scenario two set: Coastal & A Zones, at 3 participation rates (40%, 70%, and 100%) with shadow evacuation for Zone A & B at 20% & 10% respectively and run for 12-hour and 2-days (70/30) response times. (6 runs)

Coastal Zone **40, 70, & 100%**
 Zone A
 Zone B **20%**
 Zone C **10%**

Third scenario (significant surge event)

Scenario three set: Coastal, A, & B Zones at 3 participation rates (40%, 70%, & 100%) with shadow evacuation for Zone C at 30% & 20% for out of zones and run for 12-hour and 2-days (70/30) response times. (6-runs)

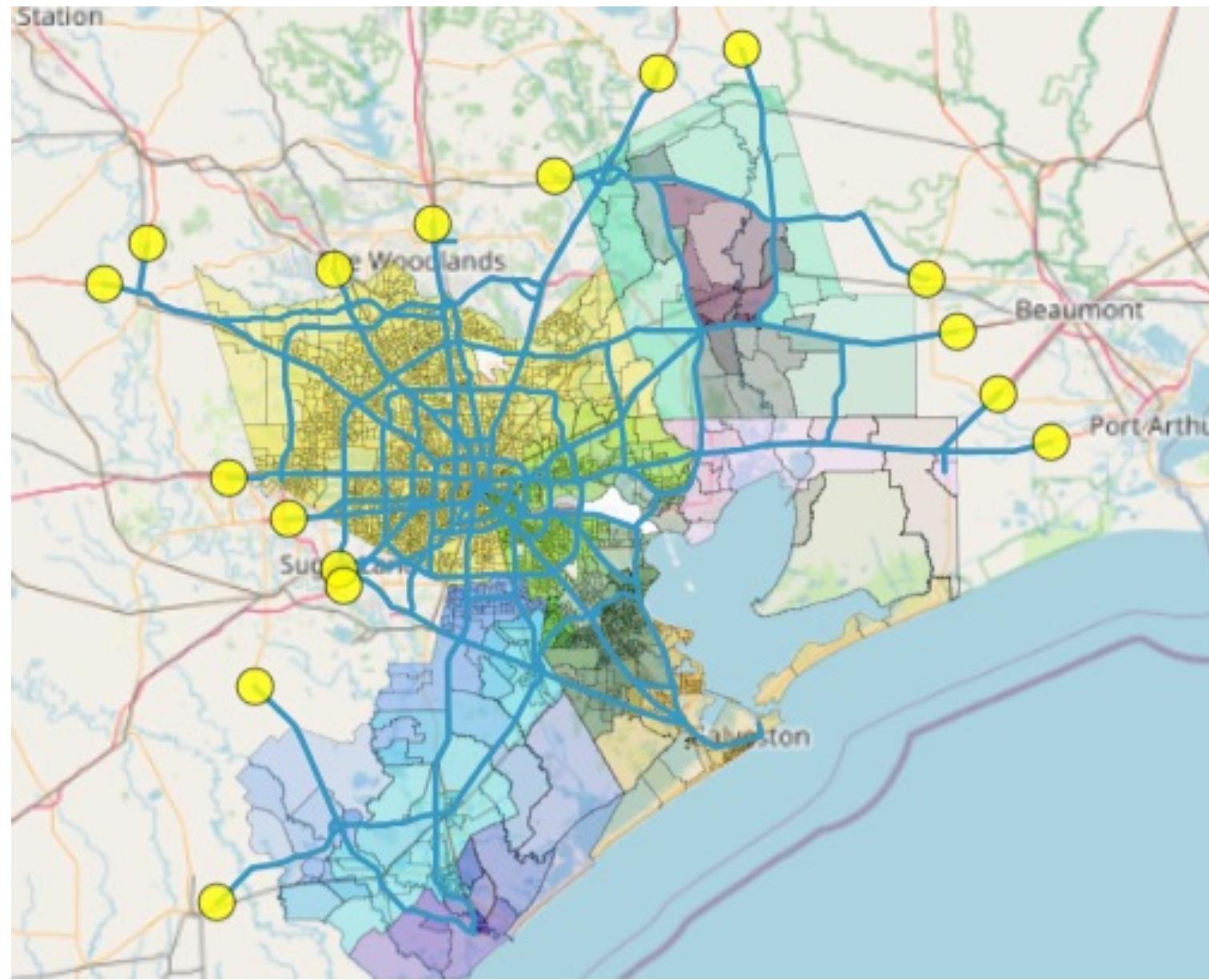
Coastal Zone
 Zone A
 Zone B
 Zone C **30%**
 20% for out of zone areas

Fourth scenario (major surge event)

Scenario four set: Coastal, A, B, & C Zones, at 2 participation rates (70% & 100%) with 30% shadow evacuation rate for out of Zone areas and run for 12-hour and 2-days (70/30) response times. (4-runs)

Coastal Zone
 Zone A
 Zone B
 Zone C **70% & 100%**
 30% for out of zone areas

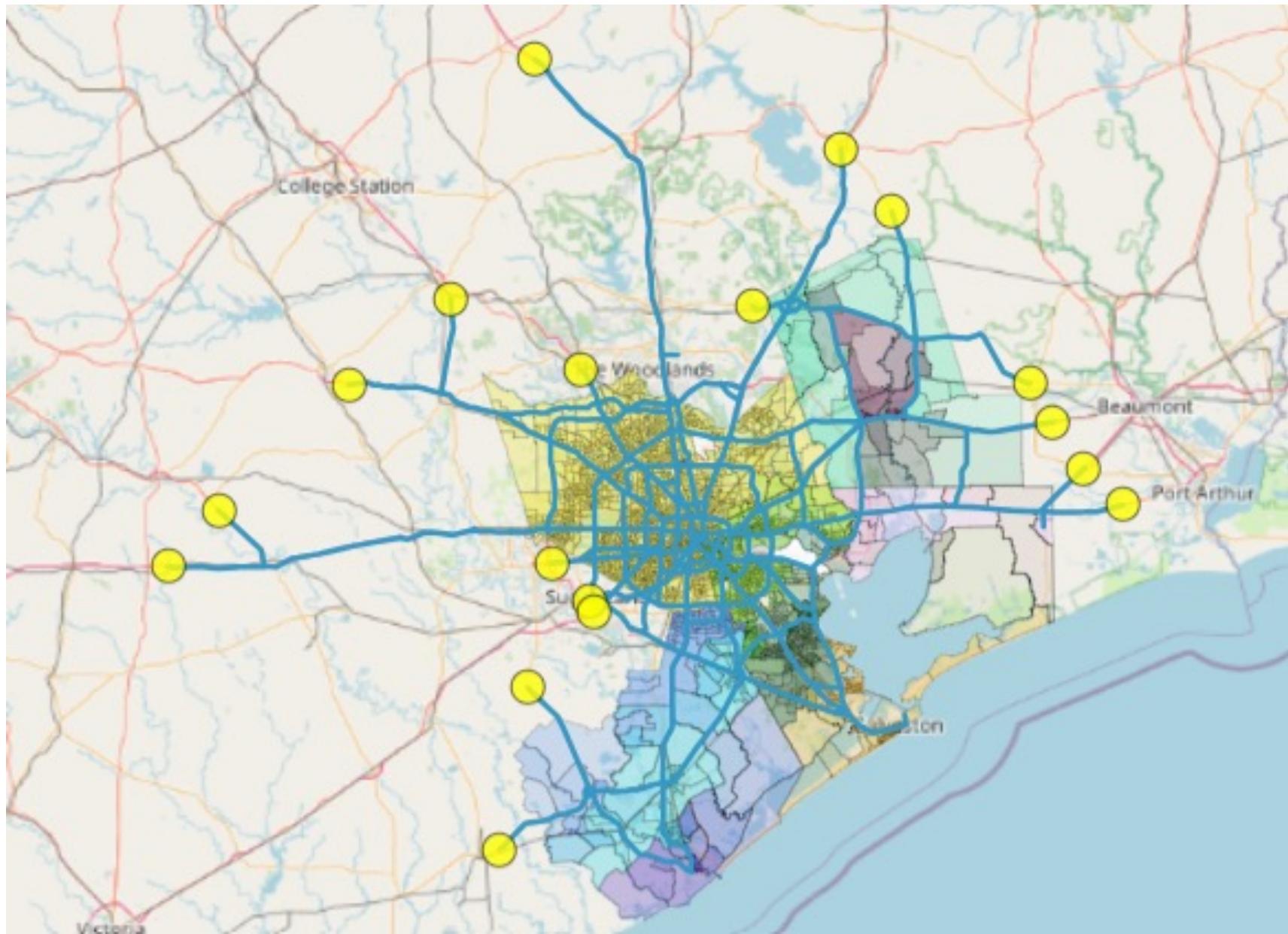
1. Each scenario will be run for two response times (22 runs)
 - 12-hour response time
 - 2-day response time (70% day 1 & 30% day 2)
2. Scenarios 3 & 4 will be run with/without evaculanes for 2-day response (+5 runs)
3. Scenario 4 will be run with/without evaculanes & contra flow for 2-day resp. (+2 runs)
- All Scenarios will assume
 - Seasonal population at full occupancy for each zone
 - Background traffic and traffic incidents not adjusted
4. A total of **29 runs** for the Upper/middle Region



MIDDLE/LOWER

- 17 EndPoint Locations
- Vetting not yet completed
 - Add Aggie Expressway [SH 249]
 - Review SH 99 northeast quadrant
 - SH 288 & US 290 capacity updates

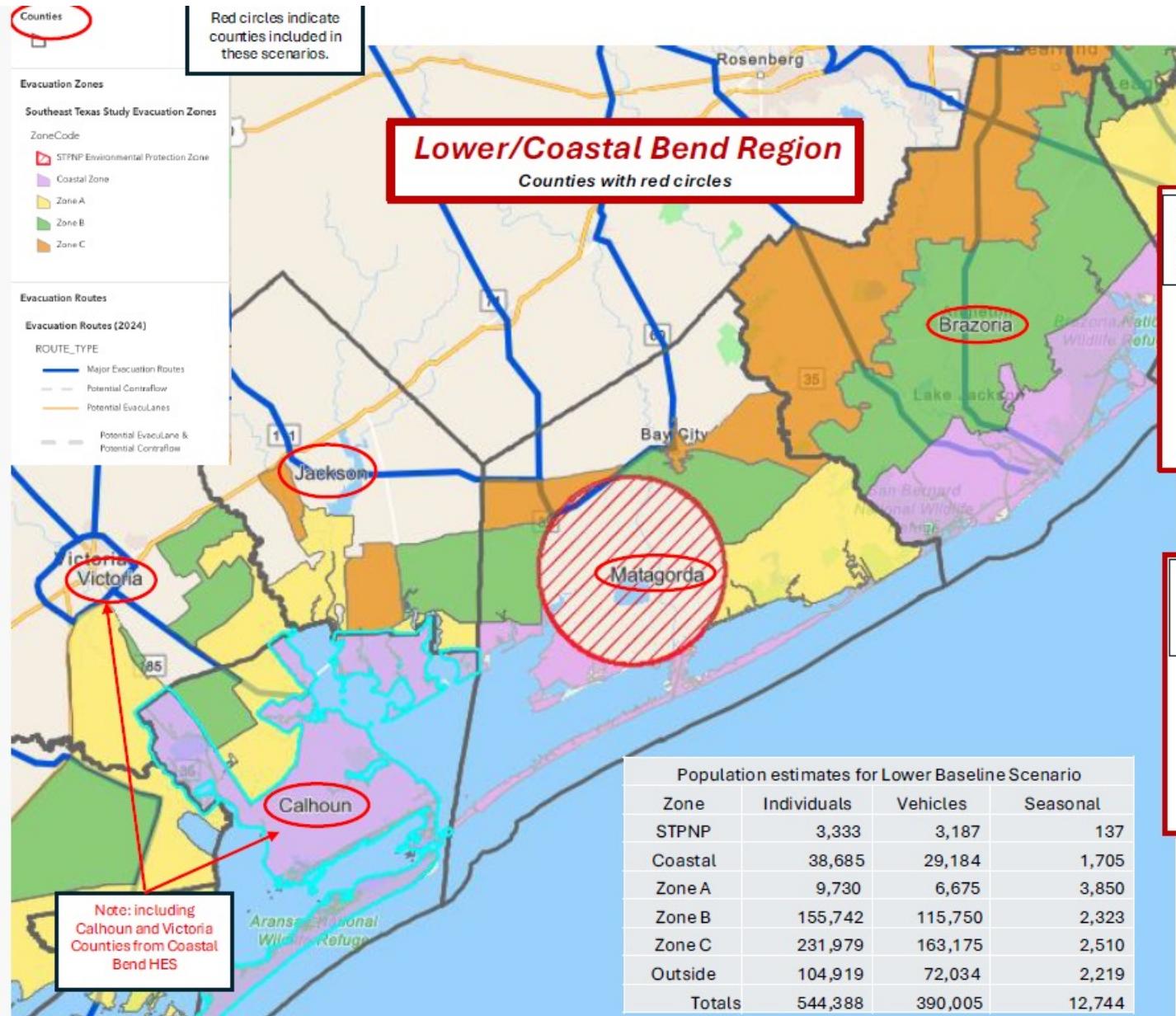
TX 35 east of Bay City	East of Show Boat Road
TX 36 in Needville	AT FM 360
US 59 / IH 69 Southwest Freeway south of Sugarland	North of University Blvd
US 90 A west of Sugarland	West of SH 6
Ft Bend Tollway west of Sugarland	West of Peek Rd
IH 10 Katy Freeway west of Katy	West of Pederson Rd
US 290 west of Hempstead	East of Brazos River
SH 6 north of Hempstead	East of FM 2979
TX 249 south of Magnolia	South of FM 1774 split
IH 45 North of The Woodlands	North of FM 1488
TX 105 east of Cleveland	North of BNSF RR
US 59 / IH 69 north of Shepherd	North of FM 223
TX 146 in Polk County	South of FM 2610
TX 105 west of Sour Lake	West of TX 326
US 90 west of China	East of FM 365 / TX 326
IH 10 east of Winnie	West of FM 365
TX 73 east of Winnie	West of Labelle Rd



MIDDLE/LOWER – EL/CFL SCENARIOS

- 18 EndPoint Locations
- Vetting not yet completed
- Expand to better model EL/CFL impacts
- Freeway capacity increases in rural areas

TX 35 east of Bay City	East of Show Boat Road
TX 36 in Needville	AT FM 360
US 59 / IH 69 Southwest Freeway south of Sugarland	North of University Blvd
US 90 A west of Sugarland	West of SH 6
Ft Bend Tollway west of Sugarland	West of Peek Rd
TX 249 south of Magnolia	South of FM 1774 split
TX 105 east of Cleveland	North of BNSF RR
TX 146 in Polk County	South of FM 2610
TX 105 west of Sour Lake	West of TX 326
US 90 west of China	East of FM 365 / TX 326
IH 10 east of Winnie	West of FM 365
TX 73 east of Winnie	West of Labelle Rd
IH 10 east of Schulenburg	East of US 90
TX 71 south of Ellinger	South of FM 2503
US 290 east of Brenham	East of FM 577
TX 6 south of Navasota	South of TX 6 Business
IH 45 south of Madisonville	North of Spur 67
US 59 / IH 69 south of Livingston	South of US 190



Lower/Coastal Bend Region Baseline Evacuation Scenarios

Scenario one (limited surge event)

Scenario one set: Coastal Zones, at 3 participation rates (40%, 70%, and 100%), with 10% shadow evacuation for Zone A, and run for 12-hour & 2-day (70/30) response times. (6-runs)

STPNP Environmental Protection Zone **100%**
 Coastal Zone **40, 70, & 100%**
 Zone A **10%**
 Zone B
 Zone C

Scenario two (moderate surge event)

Scenario two set: Coastal & A Zones, at 3 participation rates (40%, 70%, and 100%) with shadow evacuation for Zone A & B at 20% & 10% respectively and run for 12-hour and 2-days (70/30) response times. (6 runs)

STPNP Environmental Protection Zone **100%**
 Coastal Zone **40, 70, & 100%**
 Zone A **20%**
 Zone C **10%**

Scenario three (significant surge event)

Scenario three set: Coastal, A, & B Zones at 40%, 70%, & 100% participation rates with shadow evacuation for Zone C at 30% & 20% for out of zones and run for 12-hour and 2-days (70/30) response times. (6-runs)

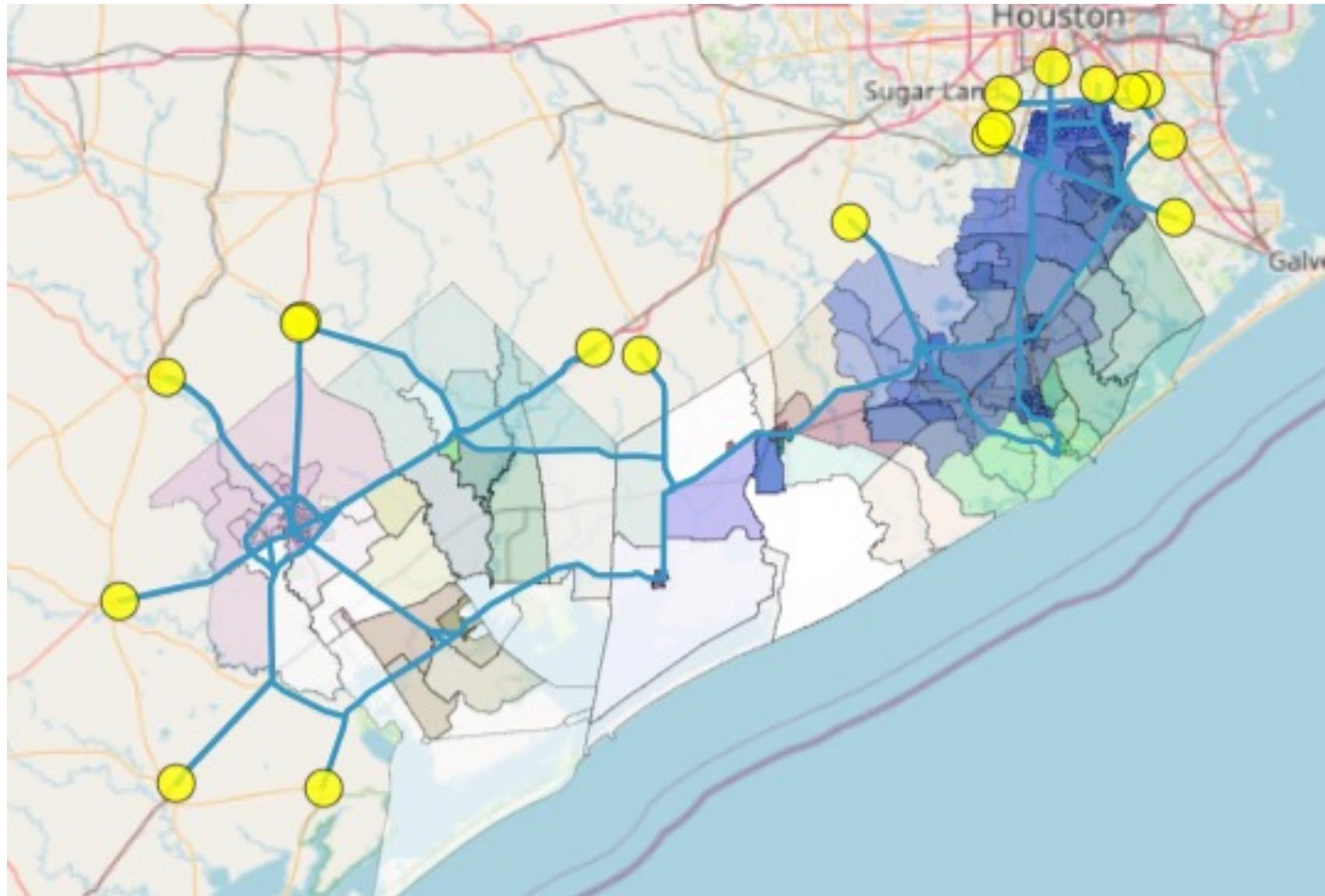
STPNP Environmental Protection Zone **100%**
 Coastal Zone
 Zone A **40, 70, & 100%**
 Zone C **30%**
 20% for out of zone areas

Scenario four (major surge event)

Scenario four set: Coastal, A, B, & C Zones, at 2 participation rates (70% & 100%) with 30% shadow evacuation rate for out of Zone areas and run for 12-hour and 2-days (70/30) response times. (4-runs)

STPNP Environmental Protection Zone **100%**
 Coastal Zone
 Zone A **70 & 100%**
 Zone C **30%**
 30% for out of zone areas

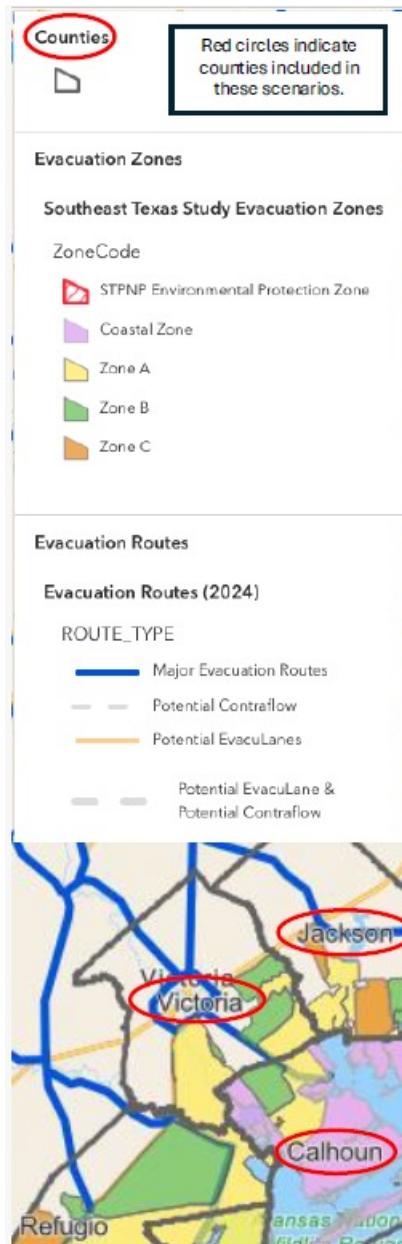
1. Each scenario will be run for two response times
- 12-hour response time
- 2-day response time (70% day 1 & 30% day 2)
2. All Scenarios will assume
- 100% participation for STPNP
- Background traffic and traffic incidents not adjusted
3. A total of 22 baseline scenarios for the Lower Regional



LOWER

- 18 EndPoint Locations
- Vetting not yet completed
 - Includes Calhoun and Victoria Counties
 - Issues with ShapeFiles/Zones
 - STNPP zone not circular in RtePM

TX 35 south of Port Lavaca	At FM 774
US 77 north of Refugio	At UP RR overpass
US 59 east of Goliad	East of Wright Street
US 87 south of Cuero	East of Industrial Park Blvd
US 77 south of TX 111	South of TX 111
TX 111 east of US 77	East of US 77
US 59 south of El Campo	At Liska Rd
TX 71 south of El Campo	At FM 2674
TX 36 south of Needville	At FM 442
TX 6 north of Arcola	North of Ft Bend Pky Toll
Ft Bend Pky Toll north of SH 6	South of Lake Olympia Pky
Sam Houston Tollway South West	East of Ft Bend Pky Toll
SH 288 near Sunnyside	South of West Bellfort
TX 35 south of Hobby Airport	North of Orem
IH 45 north of Sam Houston Tollway	North of Fuqua
Sam Houston Tollway South East	North of SH 3
FM 528 south of Webster	South of IH 45
SH 6 north of Santa Fe	West of FM 1764



Special Full Northeastern Region+ Evacuation Scenarios

Population estimates for Special Full Evacuation Scenario			
Zone	Individuals	Vehicles	Seasonal
STPNP	3,333	3,187	137
Coastal	188,415	134,659	11,063
Zone A	379,531	281,778	9,175
Zone B	467,564	333,832	8,256
Zone C	1,144,815	749,777	16,814
Outside	4,016,287	2,638,852	72,519
Totals	6,199,945	4,142,085	117,964

Significant Surge Scenario

Evacuation Zones

Significant Surge Scenario set: Coastal, A, & B Zones at 40%, 70%, & 100% participation rates with shadow evacuation for Zone C at 30% & 20% for out of zones and run for 12-hour and 2-days (70/30) response times. (3 runs)

- STPNP Environmental Protection Zone 100%
- Coastal Zone
- Zone A
- Zone B
- Zone C 30%

20% for out of zone areas

Major surge Scenario

Evacuation Zones

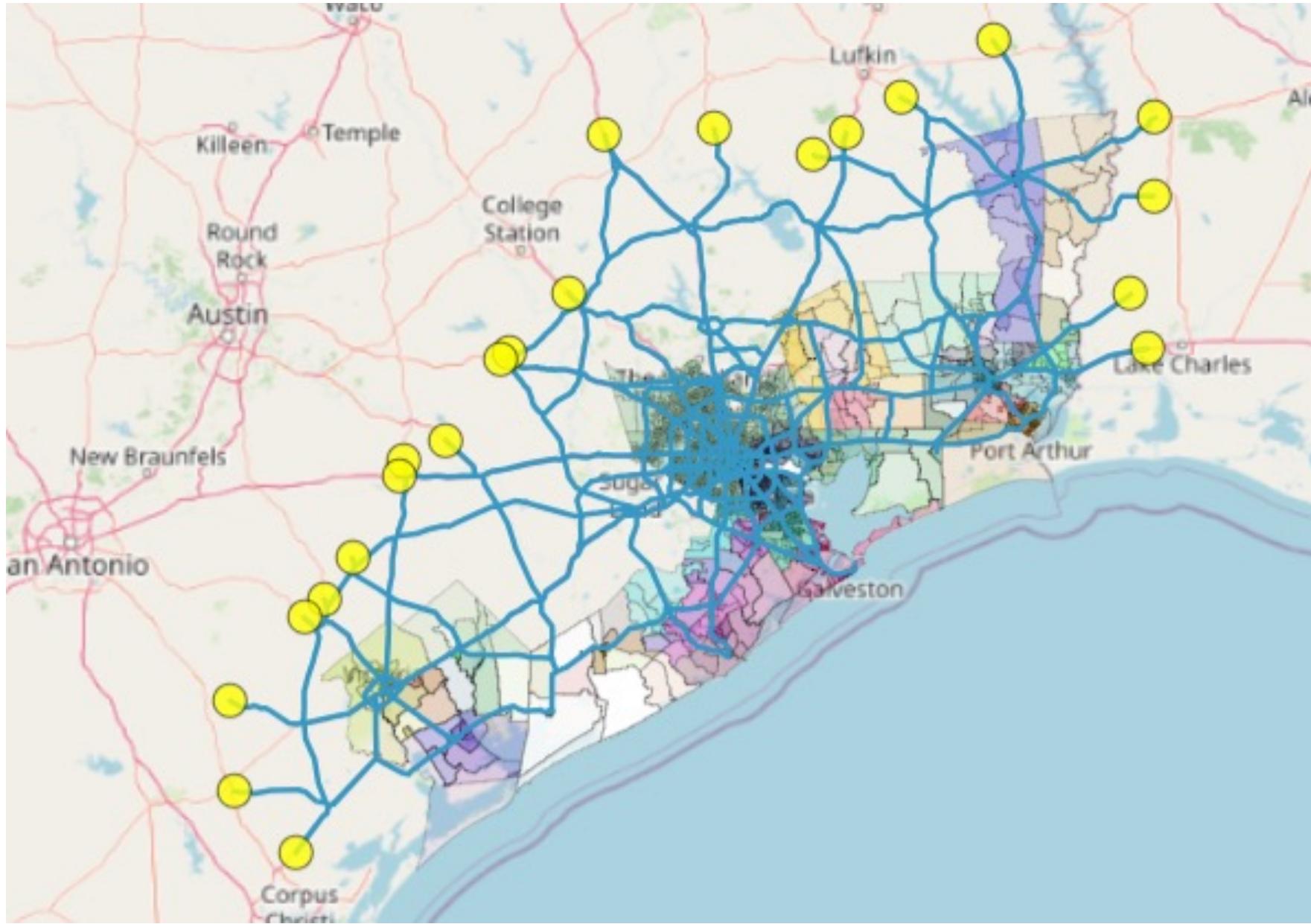
Major Surge Scenario set: Coastal, A, B, & C Zones, at 2 participation rates (70% & 100%) with 30% shadow evacuation rate for out of Zone areas and run for 12-hour and 2-days (70/30) response times. (2 runs)

- STPNP Environmental Protection Zone 100%
- Coastal Zone
- Zone A
- Zone B
- Zone C

70% & 100%

30% for out of zone areas

1. Scenario will be run assuming 2-day response time
 - (70% day 1 & 30% day 2)
2. All Scenarios will assume
 - 100% participation for STPNP
 - Seasonal population at full occupancy for each
 - Background traffic and traffic incidents not adjusted
 - Evaculane and contra flow active
3. A total of 5 full regional scenarios will be run.



SPECIAL FULL REGIONAL

- 22 EndPoint Locations
- Vetting not yet completed
 - Waiting to address issues in other areas and transfer solution over
 - EL/CFL runs

US 77 south of Refugio	At San Patricio/Refugio C/L
TX 202 east of Beeville	East of US 181
TX 239 east of Kenedy	West of FM 2443
US 87 west of Cuero	East of FM 953
US 183 north of Cuero	North of US 77A
TX 95 north of Yoakum	North of US 77A
IH-10 west of Schulenburg	West of FM 2672
US 77 north of Schulenburg	South of FM 956
TX 71 north of Columbus	South of FM 955
US 290 west of Brenham	West of US290/SH 36
TX 36 north of Brenham	North of Park Street
SH 6 north of Navasota	North of FM 2154
IH-45 North of Madisonville	South of OSR
TX 19 south of Lovelady	South of FM 230
US 287 west of Corrigan	West of FM 1872
US 59 / IH 69 south of Dibol	South of FM 357 / FM 1987
US 69 south of Huntington	North of FM 844
US 96 south of San Augustine	South of FM 2213
LA 8 west of Leesville	West of Airport Rd
US 190 west of DeRidder LA	At LA 3266
LA 12 west of DeQuincy	East of East Airport Rd
IH-10 in Sulpher LA	West of Ruth Street